US-6562 - 11 -

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ABSTRACT OF THE DISCLOSURE

An ONO formation method comprises the following procedures. First, a bottom oxide layer is formed on a silicon substrate, and then a silicon-rich nitride layer is deposited on the bottom oxide layer. Then, an oxidation process is performed to react with silicon atoms in the silicon-rich nitride layer, so as to form a top oxide layer. Alternatively, the silicon-rich layer can be replaced with a combination of a nitride layer and a polysilicon layer. The oxidation process can consume the polysilicon layer into the top oxide layer, and proper oxygen is introduced into the nitride layer.